WHAT IS CLAIMED IS:

1. A data conversion apparatus comprising:

a storage unit configured to store first and second conversion tables to convert predetermined 4-bit data into 6-bit data; and

a conversion unit configured to convert the predetermined 4-bit data into the 6-bit data by using one of the first and second conversion tables stored in the storage unit,

wherein each of the first and second conversion tables includes 16 6-bit conversion codes to convert 16 4-bit data into 16 6-bit data,

the 6-bit conversion code in the first and second conversion tables is a code which converts the 4-bit data into the 6-bit data that allows 1 as the minimum number of consecutive "0" bits between successive "1" bits,

a code at an end of at least one of all the 6-bit conversion codes in the first and second conversion tables is an inversion bit for DC suppression, and

the inversion bit selects one of "0" and "1" in accordance with a predetermined condition.

2. An apparatus according to claim 1, wherein each 6-bit conversion code contained in the first and second conversion tables stored in the storage unit contains information to designate a conversion table to be used for next data conversion.

3. A data conversion apparatus comprising:

a storage unit configured to store a conversion table to convert m-bit data into n-bit data; and

a conversion unit configured to convert the m-bit data into the n-bit data by using the conversion table stored in the storage unit,

wherein the conversion table contains a plurality of bit conversion codes to convert the m-bit data into the n-bit data,

the bit conversion code is a code which converts the m-bit data into the n-bit data that allows the minimum number d of consecutive "0" bits between successive "1" bits,

a code at an end of at least one of all the bit conversion codes in the conversion table is an inversion bit for DC suppression, and

the inversion bit selects one of "0" and "1" in accordance with a predetermined condition.

4. A data conversion method of converting predetermined 4-bit data into 6-bit data, comprising:

converting the predetermined 4-bit data into the 6-bit data by using one of first and second conversion tables;

wherein each of the first and second conversion tables includes 16 6-bit conversion codes to convert 16 4-bit data into 16 6-bit data,

the 6-bit conversion code in the first and second

conversion tables is a code which converts the 4-bit
data into the 6-bit data that allows 1 as the minimum
number of consecutive "0" bits between successive "1"
bits,

5   a code at an end of at least one of all the 6-bit
conversion codes in the first and second conversion
tables is an inversion bit for DC suppression, and

the inversion bit selects one of "0" and "1" in
accordance with a predetermined condition.

10   5.   A method according to claim 4, wherein each
6-bit conversion code contained in the first and second
conversion tables contains information to designate
a conversion table to be used for next data conversion.

6.   A data conversion method of converting m-bit

15 data into n-bit data, comprising:

converting the m-bit data into the n-bit data by
using a conversion table,

wherein the conversion table contains a plurality
of bit conversion codes to convert the m-bit data into

20 the n-bit data,

the bit conversion code is a code which converts
the m-bit data into the n-bit data that allows the
minimum number d of consecutive "0" bits between
successive "1" bits,

25   a code at an end of at least one of all the bit
conversion codes in the conversion table is an
inversion bit for DC suppression, and

the inversion bit selects one of "0" and "1" in accordance with a predetermined condition.